The Determinants of Local Government Information Systems Effectiveness

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ABSTRACT

In an embodiment of regional government autonomy, the Indonesian Ministry of Home Affairs in 2019 provided authority to the regional government in financial and development as stated in the Local Government Information System (LGIS). This information system has unique characteristics regarding to regional government's development policy. Several previous studies stated that human resources influenced the effectiveness of LGIS implementation. Therefore integrated research related to human resources needs to be carried out in this study. This study combines two factors, namely internal and external within the individual. Questionnaires were distributed to Yogyakarta City HRD bureau employees to obtain the data. The hypothesis of this study is tested using linear regression. The main results of this study are that the user-friendly features and the involvement of budget preparers have positive effects on local government performance, but the experience in using LGIS, education, and training does not affect the effectiveness of LGIS. These results are expected to contribute to the practice of local government financial reporting and at the same time enrichment in the field of behavioural accounting through the theory of self-determination.

Keywords: Local government information systems, budget involvement, experience.

1. RESEARCH BACKGROUND

Indonesian Ministry of Home Affairs implemented the Local Government Information System or LGIS (*Sistem Informasi Pemerintah Daerah*/SIPD) in 2019 which integrates information on regional financial management and regional development, so the public can monitor the regional government's achievement of the policies that set out in the regional government's annual work plan (Republik Indonesia, 2019). This policy of the Indonesian Ministry of Home Affairs about LGIS is the embodiment of regional autonomy (Republik Indonesia, 2014). LGIS emphasizes the management of regional government development information, regional government financial information, and other regional government information that are interconnected to be utilized in implementing regional government development (Republik Indonesia, 2019). This information is used to manage regional government development planning data and

information as well as regional government development analysis and profiles so that this information constitutes a system for data and information management as well as preparation, monitoring, and evaluation of regional government financial management documents electronically that are integrated between regions.

However, LGIS is a turned-key system developed by the central government (Republik Indonesia, 2019). This implies that the stages in LGIS have important links – when planning does not go well, the implementation of the information system will not go well either. On the other side, a conclusion about the LGIS is that the preparation of information in the LGIS goes through several stages, including data planning, data collection, electronic-based data filling, and electronic-based data checking. This stage is the management or administration of data which forms the basis for the preparation of electronic-based regional government development planning documents and regional apparatus documents. In addition, a data management team is established by the local regional government's decision. The establishment information captures the unique regional characteristic because regional government has unique characteristics, such as geography, demography, and local government system. In addition, human resources are an integral part of the implementation of these stages.

Decentralization or sharing authority with local government can enhance the efficient realization of public policy (Imrovič & Švikruha, 2015) because the local community can participate actively in administrative transparency (Ahmad & Talib, 2013). Dewi and Mimba (2014) state that the effectiveness of the application or implementation of LGIS affects the quality of local government financial reports in Indonesia. Referring to previous research in the Indonesian government, the socialization of the system has an impact on the ineffective implementation of LGIS. According to research by Ekaputra (2021), the LGIS application implementation is still less effective in the first year. The main obstacle is the lack of understanding of the application and changes to the activity program nomenclature so that local government officials are confused in the process of preparing the documents. Local governments need to socialize the use procedures of the application, changes to the new nomenclature, and assistance in preparing the regional work plan documents by the local Bappeda (Ekaputra, 2021). Changing the system to digitalization needs the cognitive and creative skills of humans (Melnyk *et al*., 2021).

This finding supports the other study that states human education in digital technology should be considered as part of digitalised system implementation (Ponomarenko *et al*., 2021) because training can achieve employee engagement in the public sector that faces employee turnover (Wushe *et al*., 2019). Wushe *et al*. (2019) also state leader in the organization has a significant impact on employee engagement through value and goal demonstration by the leader. According to this finding, this study considers that education, experience, and training impact the effectiveness of LGIS implementation. However, this research needs to explore further related internal as well as external of each individual which is suspected of affecting the effectiveness of the implementation of LGIS. Therefore, this study also includes ease of features to understand and participation in preparing the LGIS budget as the antecedent of the effective implementation of LGIS governance in regional governments.

The effectiveness of socialization results in experience in implementing LGIS, understanding of LGIS features, and perceptions of participation in the preparation of the LGIS budget not contributing or not contributing optimally to LGIS implementation. On the other hand, education as the main capital of each individual can also play a role in optimizing the effectiveness of the application or implementation of LGIS.

This study uses the speciality of Yogyakarta City's public employees as a sample.

A study by Harryanto (2014) stated that local autonomy could not yet implement accountability in the accounting system. However, in 2022 Regional Government Financial Report (RGFR) of Yogyakarta City received an unqualified opinion for 13 years from the Indonesia Supreme Audit Agency. Another reason is Yogyakarta City is one of the subordinate regencies of Yogyakarta Special Province. This province has a privilege from the Indonesian Government as a special autonomous province. As a special autonomy province, it has unique characteristics, such as geography, demography, and local government system. The implication of effective implementation of the Local Government Information System in Yogyakarta City of the Special Province of Yogyakarta that has unique characteristics can be drawn that it should be also effective if being implemented in the more common regencies throughout Indonesia.

According to the Indonesia Supreme Audit Agency, giving unqualified opinions is based on four things, namely conformity of the Regional Government Financial Report with government accounting standards, the effectiveness of the internal control system, compliance with laws and regulations, and adequacy of disclosure [https://jogja.tribunnews. com/2023/04/13]. The implication of effective implementation of the Local Government Information System in Yogyakarta City that has unique characteristics can be drawn that it should be also effective if being implemented in the more common regencies throughout Indonesia. This research is urgent to explore the success of the local government (Yogyakarta City) in implementing accountability in the accounting system.

The first contribution is the perceived user on allocation, implementation, and responsibility budget for effective system implementation. The study by Pedroso & Gomes (2020) established three measurements of effectiveness management system, namely: scope, timeliness, aggregation, and integration. This study extends the timeliness measurement of Pedroso & Gomes (2020) through the perception of the subject as effective in performing tasks, efficient in performing tasks, inconsistent budg*et allocation, and obeying budg*et allocation regulations. The second contribution is an enlargement of socialization LGIS in local government that has human limitations. The turned-key system in approach system has disadvantages or weaknesses regarding flexibility implementation. This weakness can be reduced through user-friendly features and the involvement of employees in preparing the budget.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Personnel and Governance in the Special Region of Yogyakarta

Yogyakarta City Government since 1990 has made improvements to staffing management so that the quality of human resources is getting better. According to Regional Regulation No. 1 of 1965, the Yogyakarta City Civil Service Office, referred to as the General Section is given authority related to staffing in general. Furthermore, in Regional Regulation No. 1 of 1993, regional staffing management is carried out by the staffing section of the regional secretariat.

Over time, the workload of managing employees in the personnel department became very heavy and extensive, so Regional Regulation No. 33 of 2000 was issued which formed the basis for the formation of the Regional Civil Service Agency (RCSA). The regional regulation also regulates the organizational structure and work procedures of the RCSA. However, evaluation and improvement of RCSA through rearrangement of the organizational structure and work procedures of employees continue to be carried out, for example, the issuance of Regional Regulation Number 21 of 2005. This rearrangement is an effort to improve the quality of apparatus resources and is followed

by better management support capacity. In 2005, the RCSA also issued a regulation regarding Non-Permanent Employees within the Yogyakarta City Government.

The Yogyakarta City Government continued its staffing arrangements with the issuance of Yogyakarta Mayor Regulation No. 23 of 2007. Since then, employee management has been based on an employee information system (EIS) which includes performance, behavior, and discipline as the basis for evaluating employee performance. Employee information system (EIS) is expected to increase motivation and as a form of appreciation for employee performance within the Yogyakarta City Government.

In the same year, local government regulation Number 75 of 2007 was also issued regarding the use of integrated software applications which include data input, data repair, data validation, printing and reporting of employee data, and supporting data stored in electronic databases or manually. In 2016, the City Government of the Special Region of Yogyakarta issued Perda No. 5 of 2016 which changed the Regional Civil Service Agency to the Education and Training Personnel Bureau and in 2020, based on Yogyakarta City Regional Regulation No. 4 of 2020, Education and Training Personnel Bureau changed to Personnel and Human Resources Development Bureau.

Thus, the Personnel and Human Resources Development Bureau Yogyakarta City is a staffing institution in the Yogyakarta City area whose job is to appoint, dismiss, promote, and carry out administrative tasks (salaries, bonuses, loans, pensions, family allowances) for employees. The Personnel and Human Resources Development Agency of Yogyakarta City has a vision: to strengthen the City of Yogyakarta as a livable city and a service center that is highly competitive for community empowerment based on the value of privileges its mission is to improve good and clean governance through improving the quality of the state civil apparatus.

2.2. Information Systems and Governance in Yogyakarta City

This policy of the Indonesian Ministry of Home Affairs about LGIS is the embodiment of regional autonomy (Republik Indonesia, 2014). It implies that the scope of LGIS consists of regional government development information, regional government financial information, and other local government information (Republik Indonesia, 2019). The details of LGIS scope are stated in the 7th article, 17th article, and 24th article. Article number 7 states that regional government development information consists of regional government development planning data, regional government development analysis, and profiles, as well as regional government development planning information. Article 17 states that regional government financial information consists of information on regional government budget planning, information on implementation and administration of regional government finance, accounting information and regional government financial reporting, information on accountability for regional government financial implementation, information on the regional property, and other regional financial information. Furthermore, regarding other local government information, article 24 states information on the report on the implementation of local government, information on the evaluation of regional government implementation, and information on regional government regulations.

Ministry of Home Affairs Regulation Number 70 of 2019 states that government information must be accessible to the public at large (for example the diklatlediknas.com site regarding local government information systems). The main objective of issuing this regulation is to make regional government information in one unit as a regional government information system so that information reaches the public in an integrated and easy way. Since 2020, the Personnel and Human Resource Development Bureau at Yogyakarta City has been using local government information systems to assess the

performance of its employees.

Therefore, as reported on the Yogyakarta City Government News Portal on March 10, 2023, the Yogyakarta City Government's financial reports for the 2022 fiscal year were declared to have received an Unqualified Opinion from the Supreme Audit Agency of the Yogyakarta City. This acquisition also marks the Yogyakarta City Government winning the unqualified opinion title for the 13th time in a row. Of course, this achievement cannot be separated from the capabilities and competence of human resources as well as the support of good governance at the Personnel and Human Resources Development Bureau in Yogyakarta City. According to Yuniarta & Purnamawati (2020), an unqualified audit opinion indicates reporting financial quality and good performance of local government administration.

Efforts to develop an information system for local government is not an easy matter because the information system involves various stages. As research by Kozic & Ramic (2012), local governments need to implement several stages for optimal information system implementation, namely strategy, analysis, planning, performance appraisal, and supervision. However, the monitoring stage is the lowest compared to other stages in terms of resource consumption. Furthermore, Kozic & Ramic (2012) stated that when the stages of planning and performance appraisal can be quantified, then supervision can be minimized.

One form of planning in an information system is an effort to involve members of the organization in preparing the budget, as argued (De Baerdemaeker & Bruggeman, 2015). Involvement will reduce the conditions for deviations between planning and implementation. Thus, involvement is monitored through increased motivation in achievement, called autonomous motivation (De Baerdemaeker & Bruggeman, 2015). The same thing is stated by Sari & Kustiawan (2013) that community participation has a positive effect on the preparation of the regional budget in Batam City.

According to the Supreme Audit Agency (*Badan Pemeriksa Keuangan/BPK*), giving unqualified opinions is based on four things, namely conformity of the Regional Government Financial Report with government accounting standards, the effectiveness of the internal control system, compliance with laws and regulations, and adequacy of disclosure [https://jogja.tribunnews. com/2023/04/13]. Specifically, the achievements of the unqualified opinion in 2020, 2021, and 2022 are certainly inseparable from the implementation of the Local Government Information System or LGIS (*Sistem Informasi Pemerintah Daerah/SIKD*) promulgated by the Ministry of Home Affairs in 2020 (Republik Indonesia, 2019). The implication of effective implementation of the Local Government Information System in Yogyakarta City that has unique characteristics can be drawn that it should be also effective if being implemented in the more common regencies throughout Indonesia.

2.3. Hypothesis Development

Information technology has a positive effect on the quality of local government financial reports (Ahmad *et al.*, 2020). Moreover, Ahmad *et al.* (2020) state that information technology affects transparency in local government financial reports. However, the results of research by Nasution & Nurwani (2021) state that LGIS has many features that must be filled in LGIS so that the characteristics of LGIS have an effect on employee errors in an input process. As a result, the resulting reports are different from plans or budgets, delayed budget shifts, and hampered payroll systems. Other consequences are obstacles in the preparation of the cash budget, preparation Letter of Provision of Funds, preparation Accountability Letter, preparation of Payment Order, preparation of Payment Order, and preparation of Fund Disbursement Order.

Local government as the public sector has an objective to provide the best service to society, such as society satisfaction. The ease of use of information systems has a positive impact on behavior intention adoption (Dwiputranti *et al*., 2019). Another thing is the perceived ease of operating features in e-governance which also affects optimizing budget oversight (De Moraes & Meirelles, 2016). Users are not worried about the result of making budget reports, so budget execution becomes effective. The success of the adoption of healthcare information technology in Brazil was also supported by the perception of users' satisfaction with using it (Wendland *et al*., 2019). Based on prior findings that the ease of perception of users in operating features LGIS will reduce the scary of budget responsibilities timeliness or performance impairment. Thus, the research hypothesis is stated below:

H1: User-friendly features have a positive effect on the effectiveness of LGIS implementation

According to Ariyanto & Hariman (2020), internal control affects reducing the possibility of fraud in local government financial reports. However, research by Aswar *et al*. (2021) states that internal audit does not affect the quality of local government financial reports. The inconsistent results indicate that human resources have an important influence on improving the quality of local government financial reports (Aswar *et al*., 2021). These findings are supported by Suwanda & Suryana (2021) that the quality of human resources influences the quality of local government financial reports. Riawan (2016) states that educational background influences the performance of employees who prepare financial reports. Education is also needed to improve the quality of reports. This study emphasizes in formal education of the system user, so the level of education indicates the number of years in education (Van Praag *et al*., 2013). Higher formal education enhances economic creativity and income for entrepreneurs rather than employees (Van Praag *et al*., 2013) because of the competence and qualification in performing tasks. Therefore, the socialization obstacles can be reduced by competent employees regarding their formal education. This study has a hypothesis as below:

H2: Education has a positive effect on the effectiveness of LGIS implementation

Experience has two meanings in this study, namely the number of years that employees have been working and the number of years that employees have done in same task. Suwanda & Suryana (2021) state that the quality of human resources can be demonstrated by experience related to their work. It can be achieved by self-learning, so experience indicates a personal's judgment about his or her capability in performing tasks. Lee (2020) states that self-learning and psychological empowerment have a positive impact on information system innovation. experience can also be learned by doing, such as when employees do some practice and receive feedback after performing a task (Roberts & Ashton, 2003). Learning by doing is experience through structured training. A study by Sari & Susanto (2018) shows the experience of employees could enhance a positive impact on information system auditor quality because employees do tasks effectively and efficiently. In general scopes, such as management, the previous experience has an advantage for management in adaptation and encourages innovation (Margahana *et al*., 2022). However, the relationship between experience and ethical behavior is still inconclusive (Setiany *et al*., 2022). Based on prior research, this study concludes that experience can be derived from self-learning or training through learning by doing. This approaches achieve personal capacity and enhance personal competency,

so employee who involves in information system seek effective and efficient learning in implementation of system information. Thus, the research hypotheses are:

H3: Experience has a positive effect on the effectiveness of LGIS implementation
H4: Training has a positive effect on the effectiveness of LGIS implementation

Research Anisah & Falikhatun (2021) contradicts the research results of Suwanda & Suryana (2021) and Riawan (2016) that the quality of human resources does not affect local government performance. According to Anisah & Falikhatun (2021), the involvement of budget preparers has a positive effect on local government performance. Soumar *et al*. (2021) state that reward is not the absolute motivation of public officials but the involvement of employees as a crucial motivation to enhance their performance. Involvement will create responsibility for meeting goals and commitment so that budget preparers are motivated to achieve optimal performance (Anisah & Falikhatun, 2021). Ben Moussa & El Arbi (2020) state that commitment will increase employee satisfaction because they have space to expand their ideas through their creativity. Based on the theory of motivation, research by Wong-On-Wing *et al*. (2010) reveals that individuals involved in budgeting have motivation both intrinsic and extrinsic. Both of these motivations can be a driving force for each individual to achieve organizational goals. Therefore, the research hypothesis is:

H5: The level of participation of LGIS users in preparing the budget has a positive effect on the effectiveness of LGIS implementation

3. RESEARCH METHODS

3.1. Data and Samples
This study used primary data obtained by distributing questionnaires to the staff of the Yogyakarta City Government Personnel and Human Resource Development Bureau. Questions in the questionnaire consisted of education, length of work in years, years of working with the system, perceived ease (user-friendliness) of the information system, perception of participation in preparing the budget in the system, and perceptions of the effectiveness of the information system. Thus, the object of research is the staff of the Yogyakarta City Government Personnel and Human Resource Development Bureau.

In addition to these data, this study also provided demographic questions to respondents, such as gender, age, and the field of work in the bureau. Furthermore, the data were analyzed using descriptive analysis and analysis of the effectiveness of local government information system implementation based on the regression test.

3.2. Research variables
There are 4 independent variables in this study, namely: formal education Magister or PhD in Business (Accounting and Management), Bachelor (Accounting and Management), Diploma-3 in Business (Accounting and Management), Bachelor in Others than Business, High School/Vocational High School, and others as the independent variable, length of work with the system in years, training in LGIS (information system), perceived ease (user-friendliness) of the information system, and perceptions of participation in budgeting in the system. The perception of the effectiveness of the information system is the dependent variable and the length of work in years is the control variable. The definition of each variable is as follows:
  1. Education is divided into Magister or PhD in Business (Accounting and

     Management), Bachelor (Accounting and Management), Diploma-3 in Business (Accounting and Management), Bachelor in Others than Business, High School/Vocational High School, and others. Higher education has a meaning the longer formal education.

2. The length of time working using the system in years shows the experience of employees in performing tasks.
3. Perception of employees in training in the preparation to use the LGIS
4. Perceived ease of information system features, namely questions related to LGIS users' perceptions of the user-friendly features in the LGIS platform as the independent variable.
5. Perception of participation in the preparation of the LGIS budgeting is a question related to the perception of involvement of users in preparing the budget as the independent variable 4.
6. Perception of the effectiveness of the information system is a question related to the perceptions of LGIS users in achieving organizational goals as the dependent variable.
7. The control variable is the length of total time working in years.
8. This perception at points 1, 2, 5, and 6 is measured by a Likert Scale from strongly disagree (1) to strongly agree (5).

3.3. Research Model

The first hypothesis and fifth hypothesis examine the external factors of employees regarding the implementation of LGIS, while the second, third, and fourth hypotheses examine the internal factors of employees in the implementation of LGIS. Therefore, to test the H1, H2, H3, H4, and H5, this study model is:

$$E\_LGIS = \alpha + \beta_1 UF\_LGIS + \beta_2 Edu + \beta_3 Sys\_Exp + \beta_4 Train + \beta_5 Pr\_Bg + \beta_6 TTW\_Exp \tag{1}$$

Note:

E_LGIS	The effectiveness of LGIS implementation (dependent variable)
UF_LGIS	User-friendly feature of the LGIS (H1)
Edu	Education (H2)
Sys_Exp	The length of time working using the LGIS in year/s (H3).
Train	Training to use the LGIS (H4)
Pr_Bg	Participation in the preparation of the LGIS budgeting (H5)
TTW_Exp	The length of total time working in years (control variable)

4. RESEARCH RESULTS

4.1. Respondents' Demography

There are 78 subdistricts of Yogyakarta Special Province and any subdistrict hires one personnel to operate LGIS, so the total of subjects is 78. However, it is not easy to access any subdistrict because of the long distance between subdistricts. Therefore, this study focuses on accessible areas and there are 30 respondents representing all of the employees of Yogyakarta City HRD bureau employees who run the LGIS. It can represent the dominant user demography of all the users of LGIS in 78 subdistricts of Yogyakarta Special Province also subdistricts throughout all residents in Indonesia. It includes the demographic diversity of sex, education, length of work, and experience in using LGIS.

Respondents filled in demography data, such as sex, education, length of work, and experience in using LGIS (see Table 1).

Table 1: Demography Data

Demography data	Categorization	Numbers	Percentage (%)
Sex	Female	16	53
	Male	14	47
Education	Post Graduate	1	3
	Under Graduate	5	17
	Diploma	16	53
	High School	6	20
	Others	2	7
Length of Work	X < 1 year	9	30
	1 < x < 5	6	20
	5 < x < 10	2	7
	10 < x < 15	13	43

The data of 30 respondents show that the majority of respondents were female employees with a total of 16 people or 53%, while men were 14 people or 47%. It can be concluded that the users of the system in carrying out financial administration are relatively equal between women and male users. This means that there is gender equality in the use of the system.

Their education consists of 1 (3.33%) user who holds a Magister or PhD in Business (Accounting and Management), 5 (16.67%) users who hold a Bachelor in Business (Accounting and Management), 7 (23.33%) users who hold a Diploma-3 in Business (Accounting and Management), 9 (30.00%) users who hold Bachelor in Others than Business, 6 (20.00%) users who hold High School/Vocational High School, and 2 (6.67%) users who hold and others. It seems that in terms of education, the respondents have variations in education not only in business fields. In other words, there is no dominant type or level of education of the respondents.

The length of work of the respondents was divided into five categories, namely less than one year, 1-4.99 years, 5-9.99 years, 10-14.99 years, and more than 14.99 years. The majority of respondents are employees with a length of service of 10-14.99 years or 40%. It can be concluded that the respondents were dominated by employees who worked the longest. However, it does not mean that the employees with the longest years of service are the dominant users of the system the longest. The length of time respondents used the system was divided into four categories, namely less than 1 year, 1-1.99 years, 2-2.99 years, and 3-3.99 years. The majority of respondents are employees who have used the system for less than 1 year with a total of 12 people or 40%. It can be interpreted that system users mostly use the system for less than one year. It also represents the dominant users of the system the longest of all LGIS users throughout Indonesia because the residents throughout Indonesia are mostly just implementing their LGIS after 2019.

4.2. Hypothesis Testing Results

The linear regression of user-friendly features as independent variables and the effectivity of LGIS as the dependent variable to test H1 has a significant level of 0.000 with a regression coefficient of 0.372 (see Table 2). It means if participation in the preparation

of the LGIS budget increases by 1 unit, it will affect on increasing 0.372 unit in the effectivity of LGIS This study revealed that the user-friendly features' effect is significant to The Effectivity of LGIS. It indicates that this result supports H1 or H1 is accepted.

From the H2 testing, the linear regression of education as the independent variable and The Effectivity of LGIS as the dependent variable has a significant level of 0.901 with a regression coefficient of 0.003 (see Table 2). This study revealed that education's effect is not significant to The Effectivity of LGIS. It indicates that this result supports H0 or H2 is rejected.

To test H3, the linear regression of experience in using LGIS as independent variables and the effectivity of LGIS as the dependent variable has a significant level of 0.672 with a regression coefficient of -0.015 (see Table 2). This study revealed that experience in using LGIS's effect is not significant to The Effectivity of LGIS. It indicates that this result supports H0 or H3 is rejected.

The linear regression of training as the independent variable and the effectivity of LGIS as the dependent variable to test H4 has a significant level of 0.855 with a regression coefficient of -0.012 (see Table 1). This study revealed that training's effect is not significant to the effectivity of LGIS. It indicates that this result supports H0 or H4 is rejected.

The linear regression of participation in the preparation of the LGIS budget as independent variables and the effectivity of LGIS as the dependent variable to test H5 has a significant level of 0.000 with a regression coefficient of 0.500 (see Table 2). It means if participation in the preparation of the LGIS budget increases by 1 unit, it will affect on increasing 0.500 unit in the effectiveness of LGIS. This study revealed that participation in the preparation of the LGIS budget's effect is significant to the effectivity of LGIS, so this result supports H5 or H5 (accepted).

Table 2: Hypothesis Testing Results

Independent Variables	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta	t	Sig.	
UF_LGIS	0.372	0.075	0.512	4.987	0.000***	H1 Supported
Edu	0.003	0.024	0.011	0.126	0.901	H2 Not Supported
Sys_Exp	-0.015	0.036	-0.057	-0.428	0.672	H3 Not Supported
Train	0.012	0.067	0.018	0.185	0.855	H4 Not Supported
Pr_Bg	0.500	0.109	0.510	4.600	0.000***	H5 Supported
TTW_Exp	-0.007	0.036	-0.025	-0.185	0.855	Control Variable Not Supported

*** level significance < 0.001

Note:

E_LGIS   The effectiveness of LGIS implementation (Dependent Variable)

UF_LGIS	User-friendly feature of the LGIS
Edu	Education
Sys_Exp	The length of time working using the LGIS in year/s
TTW_Exp	The length of total time working in years
Train	Training to use the LGIS
Pr_Bg	Participation in the preparation of the LGIS budgeting

5. DISCUSSION

External factor namely the user-friendly features of LGIS and participation in preparation of LGIS budgeting has a positive effect on the effectiveness of LGIS implementation. It supports De Moraes & Meirelles (2016) that the perceived ease of operating features in e-governance also affects optimizing budget oversight. Users are not worried about the result of making budget reports and budget execution becomes effective. Employees will report budget execution on time although local governance uses a turn-key approach in LGIS implementation. It supports the finding of Wendland *et al*. (2019) that Brazil succeeded in the adoption of healthcare information because of the perception of users' satisfaction with operating features.

In another factor, this study also supports Anisah & Falikhatun (2021), that the involvement of budget preparers has a positive effect on local government performance because employees have the motivation to achieve the organization's goal through their involvement in the budget (Soumar *et al*., 2021). As Anisah & Falikhatun (2021) also reveal, in this study, the involvement will create responsibility for meeting goals and commitment so that budget preparers are motivated to achieve optimal performance. This is why during the 13 periods, Yogyakarta City was able to receive an Unqualified Opinion on the Regional Government's Financial Statements. Ben Moussa & El Arbi (2020) and Wong-On-Wing *et al*. (2010) show the consistent motivation of employees through creativity as the manifestation of satisfaction from involvement.

Since the study results reveal that experience in using LGIS, education, and training does not affect the effectiveness of LGIS, it is very clear that if the government information system has user-friendly features, it can be implemented effectively and the output is also effective. It also contradicts Margahana *et al*. (2022) that stated the involvement of essential people is one of the key factors in their network and exchange of business information. This finding also supports Pham *et al*. (2023) that skill variety, task significance, task identity, feedback, and autonomy do not affect job performance among public servants. In other words, the most important factor is user-friendly features.

6. CONCLUSION

Yogyakarta City of the Special Province of Yogyakarta has received an Unqualified Opinion on the Regional Government Financial Statements for 13 consecutive years consistently occurring during the implementation of the local government information system called "Sistem Informasi Pemerintah Daerah (LGIS)" promulgated by the Ministry of Home Affairs in 2020. Even though the stages in implementing a computer-based information system usually are not easy. Several previous studies stated that human resources influenced the effectiveness of LGIS implementation. Therefore integrated research related to human resources needs to be carried out in this study. This study combines two factors, namely internal and external within the individual. For example, the experience factor, the perception of involvement in preparing the budget, and the perceived ease of implementing information systems (user-friendly features) are external

factors that encourage effective LGIS implementation. The main results of this study are that the user-friendly features and the involvement of budget preparers have positive effects on local government performance, but the experience in using LGIS, education, and training does not affect the effectiveness of LGIS. The involvement of budget preparers also has a positive effect on local government performance because employees have the motivation to achieve the organization's goal through their involvement in the budget.

These results are expected to contribute to the practice of local government financial reporting. It can be concluded from the result that when the LGIS has user-friendly features, the skill variety, task significance, task identity, feedback, and autonomy do not affect job performance among public servants. In other words, the most important factor in the LGIS implementation effectiveness is the user-friendly features. It is very clear that if the government information system has user-friendly features, it can be implemented effectively and the output is also effective. On the other hand, involvement in budget preparation will create responsibility for meeting goals and commitment so that budget preparers are motivated to achieve optimal performance. It is proven by Yogyakarta City of the Special Province of Yogyakarta that has received an Unqualified Opinion on the Regional Government's Financial Statements for 13 consecutive years even consistently occurring during the implementation of the LGIS. The implication of effective implementation of the Local Government Information System in Yogyakarta City of the Special Province of Yogyakarta that has unique characteristics can be drawn that it should be also effective if being implemented in the more common regencies throughout Indonesia. At the same time, it contributes to the enrichment of the field of behavioural accounting through the theory of self-determination.

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